

WHAT IS CLAIMED IS:

1. A camera comprising:

a sensor array which detects an image signal of  
a subject existing in a specific position on a photo-  
graphic screen and has a plurality of sensors;

5 a computing section which calculates the average  
value of the outputs of a part of said plurality of  
sensors in the sensor array;

10 an average photometric sensor which detects the  
average brightness at the photographic screen;

an average luminance computing section which  
calculates the average luminance value at the  
photographic screen on the basis of the output of the  
average photometric sensor;

15 a subject state judgment section which determines  
the state of the subject by comparing the average value  
of the sensor outputs with the average luminance value;  
and

20 an exposure control determining section which  
determines exposure control during photographing on the  
basis of the average luminance value and the results of  
the determinations at the subject state judgment  
section and the subject field state judgment section.

25 2. The camera according to claim 1, further  
comprising:

a photographic optical system capable of variable  
power;

a first optical system which directs light from the subject to the sensor array and is different from the photographic optical system; and

5           a second optical system which directs the light from the subject to the average photometric sensor and is different from the photographic optical system,  
wherein

10           the average photometric sensor has a plurality of light-receiving portion, each having a different light-receiving range, and changes not only the size occupied by a part of said plurality of sensors in the sensor array used in the computing section but also the light-receiving range of the average photometric sensor according to the variable power state of the  
15           photographic optical system.

3. The camera according to claim 1, wherein the sensor array produces a distance-measuring image signal, and

20           the outputs of a part of said plurality of sensors in the sensor array used in the computing section correspond to the sensor outputs used for distance measurement.

4. The camera according to claim 3, further comprising:

25           a photographic optical system; wherein the sensor array is capable of forming a distance-measuring image signal at a plurality of position on

the photographic screen, and

the outputs of a part of said plurality of sensors  
in the sensor array used in the computing section  
correspond to the outputs of the sensors used to output  
5 distance data used to focus the photographic optical  
system among a plurality of positions on the  
photographic screen.

5. The camera according to claim 1, further  
comprising:

10 a strobe unit which emits strobe light toward the  
subject; and

a judgment section which determines whether the  
strobe light reaches the subject, wherein  
the exposure control determining section

15 determines exposure control during photographing,  
taking into account the result of the determination at  
the judgment section.

6. The camera according to claim 5, wherein the  
exposure control determining section determines  
20 exposure control during photographing so as to cause  
the strobe unit to emit light and perform exposure  
control, when the judgment section has determined that  
the strobe light reaches the subject and the result of  
the determination at the subject state judgment section  
has shown a specific state.

7. The camera according to claim 6, wherein  
the subject state judgment section determines

whether the subject is against light, and  
the specific state is a state where the subject is  
against light.

8. The camera according to claim 5, further  
5 comprising a discriminative section which discriminates  
the mode of the camera, wherein  
the exposure control determining section  
determines exposure control during photographing,  
taking into account the result of the result of the  
10 discrimination at the discriminative section.

9. A camera comprising:  
a photographic optical system;  
an area sensor which outputs a first image signal,  
the first image signal being an image signal of a  
15 subject detected via the photographic optical system;  
an optical system different from the photographic  
optical system; and  
a sensor which outputs a second image signal,  
the second image signal being an image signal of the  
subject detected via the optical system different from  
20 the photographic optical system, wherein  
a distance is detected from the second image  
signal and a part of the first image signal, which  
coincides with a viewing range of the area sensor.

25 10. A camera comprising:  
a sensor array which detects an image signal of  
a subject existing in a specific position on a

photographic screen and has a plurality of sensors;  
a computing section which calculates the average  
value of the outputs of a part of said plurality of  
sensors in the sensor array;

5           an average photometric sensor which detects the  
average brightness of visible light at the photographic  
screen;

10          an average luminance computing section which  
calculates the average luminance value at the  
photographic screen on the basis of the output of the  
average photometric sensor;

15          an infrared photometric sensor which detects an  
infrared luminance value indicating the brightness of  
the average infrared light at the photographic screen;

20          a subject state judgment section which determines  
the state of the subject by comparing the average value  
of the sensor outputs with the average luminance value;

25          a subject field state judgment section which  
determines the state of a subject field including the  
subject by comparing the average luminance value with  
the infrared luminance value; and

30          an exposure control determining section which  
determines exposure control during photographing on the  
basis of the average luminance value and the results of  
the determinations at the subject state judgment  
section and the subject field state judgment section.

11. The camera according to claim 10, further

comprising:

a strobe unit which emits strobe light toward the subject; and

5 a judgment section which determine whether the strobe light reaches the subject, wherein

the exposure control determining section not only determines exposure control during photographing so as to cause the strobe unit to emit light and perform exposure control, when the judgment section determines that the strobe light reaches the subject and the result of the determination at the subject state judgment section has shown a specific state, but also determines exposure control during photographing so as to cause the strobe unit to emit light and perform exposure control, when the judgment section determines that the strobe light reaches the subject and the result of the determination at the subject field state judgment section has shown a specific state.

12. The camera according to claim 11, wherein

20 the subject state judgment section determines whether the subject is against light, and

the specific state is a state where the subject is against light.

13. The camera according to claim 11, wherein

25 the subject field state judgment section determines whether the light source of the subject field is artificial, and

the specific state is a state where the light source of the subject field is artificial.

14. The camera according to claim 11, further comprising a discriminative section which discriminates  
5 the mode of the camera, wherein

the subject state judgment section does not make a decision, when the discriminative section has determined that the camera is in a specific mode.

10 15. The camera according to claim 14, wherein the specific mode is at least one of a strobe OFF mode, a spot photometric mode, and an infinite photographic mode.

16. The camera according to claim 11, further comprising a discriminative section which discriminates  
15 the mode of the camera, wherein

the subject field state judgment section does not make a decision, when the discriminative section has determined that the camera is in a specific mode.

20 25. The camera according to claim 16, wherein the specific mode is at least one of a strobe OFF mode, a spot photometric mode, and an infinite photographic mode.

18. The camera according to claim 10, further comprising:

25 a photographic optical system; and  
a finder which is provided separately from the photographic optical system and is for viewing the

image of the subject, wherein

the sensor array and the average photometric  
sensor are provided near the finder.

19. The camera according to claim 18, wherein the  
5 infrared photometric sensor is provided farther away  
from the finder than from the average photometric  
sensor and sensor array.

20. A camera comprising:

10 a photometric section which measures the subject  
luminance in a plurality of areas on a photographic  
screen;

a distance-measuring section which measures the  
subject distance in a plurality of areas on the  
photographic screen;

15 a first select section which selects one from a  
plurality of distance-measuring areas on the  
photographic screen on the basis of the distance-  
measuring data about each distance-measuring area;

20 a second select section which selects one from the  
photometric area corresponding to the distance-  
measuring area selected by the first select section and  
its adjacent photometric areas on the basis of the  
photometric data about each photometric area; and

25 a backlight judgment section which makes a  
decision on backlighting by comparing the photometric  
data about the photometric area selected by the second  
select section with the photometric data about each

photometric area.

21. The camera according to claim 20, wherein the distance-measuring area selected by the first select section is the distance-measuring area whose distance-measuring data indicates the closest distance.

22. The camera according to claim 20, wherein the photometric area selected by the second select section is the photometric area whose photometric data indicates the lowest luminance.

10 23. The camera according to claim 20, wherein the photometric section and the distance-measuring section share a light-receiving section.

24. A camera comprising:  
15 a photometric section which measures the subject luminance in a plurality of areas on a photographic screen;

a distance-measuring section which measures the subject distance and subject luminance in a plurality of areas on the photographic screen;

20 a first select section which selects one from a plurality of distance-measuring areas on the photographic screen on the basis of the distance-measuring data about each distance-measuring area;

25 a second select section which selects one from the distance-measuring area selected by the first select section and its adjacent distance-measuring areas on the basis of the photometric data about each

distance-measuring area; and

5           a backlight judgment section which makes a decision on backlighting by comparing the photometric data about the distance-measuring area selected by the second select section with the photometric data from the photometric section.

10          25. The camera according to claim 24, wherein the distance-measuring area selected by the first select section is the distance-measuring area whose distance-measuring data indicates the closest distance.

15          26. The camera according to claim 24, wherein the distance-measuring area selected by the second select section is the distance-measuring area whose distance-measuring data indicates the lowest luminance.

20          27. The camera according to claim 24, wherein the photometric section and the distance-measuring section share a light-receiving section.

28. A camera comprising:

20           an imaging section which detects a subject image signal;

25           a backlighting state judgment section which determines whether the subject is against light;

25           a strobe unit which emits strobe light onto the subject on the basis of the result of the decision on backlighting at the backlighting state judgment section; and

              an image processing section which compares the

brightness of the subject with that of the background when the strobe unit emits the strobe light onto the subject, changes the amount of correction by a gamma conversion process or a contour emphasizing process on the basis of the result of the comparison, and processes the image of the subject image signal detected by the imaging section.

5

29. The camera according to claim 28, further comprising:

10

a subject distance judgment section which determines the distance to the subject, wherein it is determined whether the strobe light has a sufficient light quantity for the subject, on the basis of the subject distance determined by the subject distance judgment section, and when the result has shown that the strobe light has a sufficient light quantity and the exposure value of the background is larger than a specific value, the image processing section increases the gamma value in the gamma conversion process and processes the image so as to weaken contour emphasis in the contour emphasizing process.

15

20

30. The camera according to claim 28, further comprising:

25

a subject distance judgment section which determines the distance to the subject, wherein it is determined whether the strobe light has a

sufficient light quantity for the subject, on the basis  
of the subject distance determined by the subject  
distance judgment section, and when the result has  
shown that the strobe light has a sufficient light  
5 quantity and the exposure value of the background is  
less than a specific value, the image processing  
section does not change the amount of correction in the  
gamma conversion process and the contour emphasizing  
process.

10       31. The camera according to claim 28, further  
comprising:

a subject distance judgment section which  
determines the distance to the subject, wherein  
it is determined whether the strobe light has a  
15 sufficient light quantity for the subject, on the basis  
of the subject distance determined by the subject  
distance judgment section, and when the result has  
shown that the light quantity is insufficient and the  
insufficient quantity is larger than a specific  
20 quantity, exposure is made so as to increase the  
exposure value.

25       32. The camera according to claim 28, further  
comprising:

a subject distance judgment section which  
determines the distance to the subject, wherein  
it is determined whether the strobe light has a  
sufficient light quantity for the subject, on the basis

of the subject distance determined by the subject  
distance judgment section, and when the result has  
shown that the light quantity is insufficient and the  
insufficient quantity is smaller than a specific  
5 quantity, the image processing section increases the  
gamma value in the gamma conversion process and makes a  
correction so as to weaken contour emphasis in the  
contour emphasizing process.

33. A camera comprising:  
10           an imaging section which detects a subject image  
signal;

              a distance-measuring section which measures the  
distance to the subject;

15           a strobe unit whose light quantity is controlled  
on the basis of the result of the distance measurement  
at the distance-measuring section;

              an image processing section which processes the  
subject image signal detected by the image processing  
section;

20           an illumination state judgment section which  
determines the illuminated state of the subject before  
photographing; and

25           a control section which controls the strobe unit  
and the image processing section on the basis of the  
result of the output of the distance-measuring section  
and the result of the output of the illumination state  
judgment section.